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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,872	10/28/2003	Akira Hayama	03500.017668	9472

5514 7590 09/21/2005

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EXAMINER	
OLANDER, GABRIEL D	
ART UNIT	**PAPER NUMBER**
2879	

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/693,872	HAYAMA, AKIRA	
	Examiner	Art Unit	
	Gabriel D. Olander	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: resistance is disclosed without proper units. Ohm per square was interpreted to read ohm per square *centimeter* for evaluation based on merit.

Appropriate correction is required.

Claim 11 is objected to because of the following informalities: Ohm per square was interpreted to read ohm per square *centimeter* for evaluation based on merit.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8 & 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Iguchi et al (JP 2000-057979).

Claim 1: Iguchi discloses a method of manufacturing an envelop which includes a first substrate (fig. 5, 2), a second substrate opposed to the first substrate (fig. 5, 4), and a space defining member (fig. 5, 5) which is located between the first substrate and the second substrate and has a substantially plate shape, the method comprising:

applying a tension to the space defining member (paragraph 0014);

fixing the space defining to which the tension is applied to the first substrate (paragraph 0015); and releasing the tension from the space defining member fixed to the first substrate,

wherein in the fixing of the space defining member to the first substrate, a fixing point of the space defining member to the first substrate is located between points at which the tension is exerted (fig. 5, 5).

Claim 2: Iguchi discloses a method of manufacturing an envelope according to claim 1, wherein in the applying of the tension to the interval specifying member, a base of the spacing defining member is located at the point at which the tension is exerted (fig. 5, 5).

Claim 3: Iguchi discloses a method of manufacturing an envelope according to claim 1, wherein in the applying of the tension to the spacing defining member, an auxiliary support member connected with a base of the space defining member is located at the point at which of the tension is exerted (fig. 6 & paragraph 000028).

Claim 4: Iguchi discloses a method of manufacturing an electron beam apparatus which includes a first substrate (fig. 5, 2) having a plurality of electron emitting devices, a second substrate opposed to the first substrate (fig. 5, 4) and in which an electrode that controls electrons emitted from the plurality of electron-emitting devices is formed, and at least one space defining member (fig. 5, 5) which is located between the first substrate and the second substrate and has a substantially plate shape, the method comprising:

applying a tension to the space defining member (paragraph 0014);

fixing the space defining to which the tension is applied to the first substrate (paragraph 0015); and releasing the tension from the space defining member fixed to the first substrate,

wherein in the fixing of the space defining member to the first substrate, a fixing point of the space defining member to the first substrate is located between points at which the tension is exerted (fig. 5, 5).

Claim 5: Iguchi discloses a method of manufacturing an electron beam apparatus according to claim 4, wherein in the applying of the tension to the interval specifying member, a base of the spacing defining member is located at the point at which the tension is exerted (fig. 5, 5).

Claim 6: Iguchi discloses a method of manufacturing an electron beam apparatus according to claim 4, wherein in the applying of the tension to the spacing defining member, an auxiliary support member connected with a base of the space defining member is located at the point at which of the tension is exerted (fig. 6 & paragraph 000028).

Claim 7: Iguchi discloses a method of manufacturing an electron beam apparatus according to claim 4, wherein in the applying of the tension to the space defining member, the tension is applied by a spacer conveying unit (fig. 6 & paragraph 000028).

Claim 8: Iguchi discloses a method of manufacturing an electron beam apparatus according to claim 4, wherein in the applying of the tension to the space defining member, the tension is applied by a tension applying unit (fig. 6 & paragraph 000028).

Claim 12: Iguchi discloses a method of manufacturing an electron beam apparatus according to claim 4, wherein the first substrate further includes a plurality of wirings that electrically connect the plurality of electron-emitting devices and the interval; specifying members are located on the wirings (fig. 5, 2 where electron-emitting devices shown in fig. 2, 9).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iguchi et al (JP 2000-057979) in view of Barton et al (US 6,617,772).

Iguchi discloses a method of manufacturing an electron beam as disclosed in claim 4. Iguchi does not disclose a method of manufacturing an electron beam wherein the interval spacing member or space defining member have a base or surface with a high resistance or insulating film with a sheet resistance between 10^7 and 10^{10} ohms per square centimeter.

Barton discloses the use of an insulating film covering the surface and base of said member with a resistance that falls with the range of 10^7 and 10^{10} ohms per square centimeter. This film makes it easier to set the non-emissive electrical properties of the spacer while setting the electron escape characteristics (lines 24-32, column 4).

Placing the insulating film as taught by Barton on the spacer in the electron beam manufacturing method as disclosed by Iguchi would be obvious to one of ordinary skill in the art at the time of the invention so as to set physical and electrical properties of the spacer independently.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gabriel D. Olander whose telephone number is 571-272-6011. The examiner can normally be reached on 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

G.O.

Gabriel Olander
Patent Examiner
Art Unit 2879

VIP PATEL
PRIMARY EXAMINER